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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/693,439

10/24/2003

James D. Marshall

P-TN-09409

2022

7590

11/17/2004

Black & Decker Inc.
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EXAMINER

AL NAZER, LEITH A

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,439

Applicant(s)

MARSHALL ET AL.

Examiner

Leith A Al-Nazer

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the informal drawings filed on 24 October 2003 are acceptable for examination purposes only. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 recites the term "the first planar beam". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6, 7, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Shafer et al '483.

With respect to claim 1, Shafer teaches a laser level disposable on a reference surface comprising a housing (110 in figure 3); a first laser diode (300) disposed in the housing for emitting a first laser beam along a first path; and an electronic distance measuring circuit (1175 in figure 11) disposed in the housing for measuring distance.

With respect to claim 2, Shafer teaches a pendulum pivotably connected to the housing (500 in figure 5).

With respect to claim 3, Shafer teaches the first laser diode being disposed on the pendulum (column 3, lines 52-60).

With respect to claim 6, Shafer teaches the distance measuring circuit comprising a laser transmitter (1100).

With respect to claim 7, Shafer teaches the distance measuring circuit comprising a laser receiver (1140).

With respect to claim 10, Shafer teaches the distance measuring circuit comprising a display disposed on the housing (column 8, lines 38-41).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 4, 5, and 11-13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shafer et al '483 in view of Rando '312.

Claims 4 and 11 require a first lens be disposed on the pendulum in the first path for converting the first laser beam into a first planar beam, the first planar beam forming a first line on the reference surface. Rando teaches such a setup (figure 8). At the time of the invention, it would have been obvious to one having ordinary skill in the art to utilize the line lens of Rando in the system as taught or suggest by Shafer. The motivation for doing so would have been to provide means for producing a line, rather than a point, on a reference surface.

Claims 5 and 12 require a second laser diode be disposed on the pendulum for emitting a second laser beam along a second path, and a lens disposed on the pendulum in the second path for converting the second laser beam into a planar beam, the planar beam forming a second line on the reference surface. Rando teaches such a

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setup (figure 8). At the time of the invention, it would have been obvious to one having ordinary skill in the art to provide the system of Shafer with a second laser diode and second lens for converting a second laser beam into a second planar beam, as is taught by Rando. The motivation for doing so would have been to provide the system of Shafer with means for creating a second reference line.

With respect to claim 13, Rando teaches the first and second lines being substantially perpendicular (figure 8).

9. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shafer et al '483 in view of Koderer et al '909, Czajkowski '738, or Terry '717.

Claim 8 and 9 require the distance measuring circuit comprise a sound transmitter and sound receiver, respectively. Koderer, Czajkowski, and Terry all teach distance measuring circuits comprising a sound transmitter and a sound receiver. At the time of the invention, it would have been obvious to one having ordinary skill in the art to substitute a sound transmitter and sound receiver as taught by Koderer, Czajkowski, and Terry for the laser transmitter and laser receiver taught by Shafer. The motivation for doing so would have been to provide an alternate means for distance measuring. For example, when direct line-of-sight measuring between a reference and target point is not possible, a sound transmitter and receiver would be more useful than a laser transmitter and receiver.

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10. Claims 14, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shafer et al '483 in view of Goodrich et al '319.

Claim 14 requires a detector circuit be disposed in the housing for detecting a feature behind or underneath the reference surface. It is well-known in the art that many laser level systems are equipped with a stud-detecting circuit, as is evidenced by Goodrich et al '319 (58). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to provide a stud-detecting circuit in the system as taught or suggested by Shafer. The motivation for doing so would have been to provide the additional feature of detecting objects, such as studs and pipes, behind the reference surface.

With respect to claim 15, Goodrich teaches the detector circuit detecting at least one of the group consisting of studs, wires, and pipes (column 3, lines 35-42).

Claim 18 requires at least one bubble vial be mounted on the housing. It is well known in the art to use bubble vials on alignment instruments such as laser levels, as is evidenced by Goodrich (figure 1). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to utilize a bubble level in the system taught by Shafer. The motivation for doing so would have been to provide means for determining whether or not the laser level was parallel to the ground.

11. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shafer et al '483 in view of Rando '630.

Claim 16 requires the housing at least partially enclose the pendulum. Rando teaches such a configuration (figure 13). At the time of the invention, it would have been obvious to one having ordinary skill in the art to include a portion of the pendulum of Shafer within the housing. The motivation for doing so would have been to protect the pendulum and the contents of the pendulum from exterior conditions.

Claim 17 requires at least one window for allowing the first planar beam to exit therethrough. Rando teaches such a window (95 in figure 11A). At the time of the invention, it would have been obvious to one having ordinary skill in the art to provide the system of Shafer with at least one window in the housing. The motivation for doing so would have been to provide means for the allowing the laser beam to exit the housing.

Communication Information

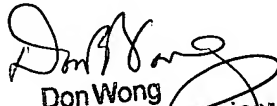
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leith A Al-Nazer whose telephone number is 571-272-1938. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LA


Don Wong
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